

# Nebraska Diabetes Consensus Guidelines

## Diabetes Management Schedule <sup>(1)</sup>

Adults with diabetes should receive medical care from a physician-coordinated team of health care professionals. Referrals to team members should be made as appropriate.

### At each regular diabetes visit:

- Measure weight or BMI<sup>(2)</sup> and blood pressure.
- Foot exam/pulses<sup>(3)</sup>
- Review self-monitoring glucose record.
- Review/adjust medications to control glucose, blood pressure, and lipids.
- Consider low-dose aspirin, ACE inhibitors<sup>(4)</sup>, statins
- Review self-management skills, dietary needs, and physical activity.
- Review skin/injection sites
- Assess for depression or other mood disorder.
- Counsel on tobacco cessation and alcohol use.

### Quarterly:

Obtain A1C in patients whose therapy has changed or who are not meeting glycemic goals (twice a year if at goal with stable glycemia).

### Annually:

- Annual exam/history update
- Abdominal and neurological exam
- Cardiac assessment/pulses
- Thyroid assessment<sup>(5)</sup>
- Refer for dental/oral exam at least once a year<sup>(6)</sup>
- Fasting lipid profile (every 2 years if patient has low-risk lipid values)<sup>(7)(8)</sup>
- Random spot urine test for albumin-to-creatinine ratio in patients with type 1 diabetes >5 years and in all patients with type 2 diabetes<sup>(9)</sup>
- Serum creatinine to estimate glomerular filtration rate and stage the level of chronic kidney disease<sup>(10)</sup>
- Refer for dilated eye exam (if normal, an eye care specialist may advise an exam every 2–3 years).
- Comprehensive foot exam.
- Influenza vaccination.
- Review need for other preventive care or treatment.

### Lifetime:

- Administer pneumococcal vaccination (repeat if over age 64 or immunocompromised and last vaccination was more than 5 years ago)<sup>(11)</sup>
- Administer hepatitis B vaccination to patients aged 19 to 59 (use clinical discretion for patients ≥60 years).<sup>(12)</sup>

## Numbers At-a-Glance 2013 For non-pregnant adults

### Criteria for Diagnosis of Diabetes\*

1. A1C  $\geq 6.5\%$  **or**
2. Fasting plasma glucose  $\geq 126$  mg/dl **or**
3. 2-hr plasma glucose  $\geq 200$  mg/dl post 75g oral glucose challenge **or**
4. Random plasma glucose  $\geq 200$  mg/dl with symptoms (polyuria, polydipsia, and unexplained weight loss)

\*For criteria 1-3: Repeat test to confirm unless symptoms are present. It is preferable that the same test be repeated for confirmation. If two different tests are used (e.g., FPG and A1C) and both indicate diabetes, consider the diagnosis confirmed. If the two different tests are discordant, repeat the test above the diagnostic cut point.

### Criteria for Prediabetes\*\*

1. Fasting plasma glucose 100 – 125 mg/dl [Impaired fasting glucose (IFG)] **or**
2. 2-hr post 75g oral glucose challenge 140 – 199 mg/dl [Impaired glucose tolerance (IGT)] **or**
3. A1C  $\geq 5.7\% - 6.4\%$

\*\*For all tests, risk of diabetes is continuous, extending below the lower limit of the range and becoming disproportionately greater at higher ends of the range.

†† A1C testing for diagnostic purposes should be performed in a laboratory using a method that is NGSP certified. Point of care A1C tests should not be used for diagnosis. Be alert to the impact of hemoglobin variants on A1C values. See [www2.niddk.nih.gov/variants](http://www2.niddk.nih.gov/variants) for information.

## Treatment Goals: the ABCs of Diabetes

**A1c:  $<7\%$ <sup>(13)</sup>**

Pre-prandial capillary plasma glucose: 70-130

Peak post-prandial capillary plasma glucose:  $<180$

**Blood Pressure:  $<140/80$**

**Cholesterol-Lipid Profile:**

LDL:  $<100$

Triglycerides:  $<150$

HDL: Women  $>50$ , Men  $>40$

(1) Based on American Diabetes Association: Standards of Medical Care for Patients With Diabetes Mellitus. Diabetes Care 36 (Suppl. 1): January 2013.

(2) Healthy BMI: 18.5-24.9; underweight BMI: less than 18.5; overweight BMI: 25.0-29.9; obese BMI: 30 or more.

(3) Annual comprehensive foot exam.

(4) ACE inhibitors, ARBs and statins are contraindicated during pregnancy.

(5) Thyroid function tests when indicated.

(6) Type 1—ADA annually within five years after onset w/annual follow-up dilated exams; Type 2 annually.

(7) Lipid profile, annually. If within normal limits, the clinician may consider obtaining less frequently.

(8) 2004 National Cholesterol Education Program (NCEP) clinical practice guidelines recommend treating to  $<70$  mg/dL. Adult Treatment Panel (ATP) III goal is  $<100$  for high-risk patients and  $<70$  for very high-risk patients. ADA Guidelines suggest  $<100$  for all; consider statins  $>40$  years of age with total cholesterol  $>130$  mg/dl and goal  $<70$  mg/dl with known heart disease or multiple risk factors. If LDL goal not reached w/max tolerable statin therapy, 40% drop from baseline is acceptable.

(9) Type 1 - Five years after diagnosis, then annually at adolescence; Type 2 - at diagnosis.

(10) ADA recommends measuring at least annually for estimation of glomerular filtration rate (GFR) in all adults with diabetes regardless of degree of urine albumin excretion. Serum creatinine alone should not be used as a measure of kidney function but to estimate GFR using MDRD equation and stage the level of CKD.

(11) Centers for Disease Control & Prev. Guidelines: Once and repeat after age 65 if more than five years after last vaccination. (MMWR Vol. 56(41): Q1-Q4.

(12) CDC Morbidity and Mortality Weekly Report. Use of hepatitis B vaccination for adults with diabetes mellitus: recommendations of the Advisory Committee on Immunization Practices. December 23, 2011/60(50);1709-1711.

(13) ADA recommends  $<6.5\%$  or as close to normal as possible for selected individuals without significant hypoglycemia